

PROJECT TITLE

LEARNING PIE

Submitted in partial fulfillment of the requirements of

PG Diploma in Advanced Computing

By

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Kharghar/Juhu

September 2021

CERTIFICATE

This is to certify that the project entitled “**Learning Pie**” is a bonafide work of “**Gaurav Jadhav(210940320041), Amit Bilapatte(210940520010), Payal Dhoke(210940320079), Pralhad Phule(210940320083), Pratik Talawadekar(210940320091).**” submitted to CDAC Mumbai in partial fulfillment of the requirement for the award of the Post Graduate Diploma in Advanced Computing.

(Name)**Supervisor/Guide****(Name)****Faculty**

Declaration

I declare that this written submission represents our ideas in our own words and where others' ideas or words have been included, we have adequately cited and referenced the original sources. We also declare that we have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in my submission. We understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

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Date:15 /04/2022

Abstract

This project facilitates online sharing of questions and answers (Content). This will help users to find/Locate all necessary content at one place. It is also helpful in solving doubts/queries. We use problem solving approach as user can search their doubts on the website to find the answer. If the question is not present then user can post it and any user with relevant technology knowledge can solve it. The most relevant answer would be suggested first.

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1. Introduction

Learning Pie has become important factor in modern education field. This system should help the learner to streamline the administrative task and provide real-time access to the data. Building this system in standalone application interface will further help the ease of accessibility through the provided portal. The study findings enable the definition of the project problem statement, its objectives, scopes and advantages of the Learning Pie.

1.1 Purpose

This project facilitates online sharing of questions and answers (Content). This will help users to find/Locate all necessary content at one place. It is also helpful in solving doubts/queries. We use problem solving approach as user can search their doubts on the website to find the answer. If the question is not present then user can post it and any user with relevant technology knowledge can solve it. The most relevant answer would be suggested first.

Intended Audience and Reading Suggestions

This document is intended for developers, users, testers and project managers for the purpose of understanding the design of system in terms of different perspectives. Further, this document contains functionalities and characteristics of system along with the working environment.

1.2 Scope

Our project is based on an internet is an internet enabled electronic platform that facilitates communication for the purposes of study materials and question answers. To provide user efficient working environment. User friendly interface for the target stakeholders. Proper monitoring facility for the authority. Easy maintenance and administration. Ensure high level of security. The software will have all common features and functionalities along with some other special facilities. This system will help in tracking records so that past records can be verified through them and one can make decisions based on the past records. This system will complete the work in a very less time resulting in less time consumption and high level of efficiency.

1.3 Document Conventions

Headings: -

Text : - Bold
Font-Size : - 14
Highlighting : - Times New Roman

Sub Headings: -

Text : - Bold
Font-Size : - 14
Highlighting : - Times New Roman

Header: -

Text : - Bold
Font-Size : - 10
Highlighting : - Times New Roman

Footer: -

Text : - Bold
Font-Size : - 10
Highlighting : - Times New Roman

1.4 References

<https://docs.oracle.com/javaee>

<https://javaee.github.io/tutorial>

<https://reactjs.org>

<https://www.mysql.com/>

<https://spring.io/>

<https://www.javascript.com/>

<https://developer.mozilla.org/en-US/docs/Web/JavaScript>

2. Overall Description

2.1 Product Perspective

This project is going to bring the students and professionals on one platform where they can view questions, answers and other resources. A user can also post questions. The main point of view of the project is to provide a platform for all the people to learn and share their knowledge.

2.2 Product Functions

User:

The user will be able to post an question as well as answers.

The user will be able to view the available resources.

The user will be able to filter the best suitable answers.

Admin:

Admin can view all users and their queries and also answer

Admin can delete a answer which is irrelevant

Admin can upload the resources on the group

2.3 User Classes and Characteristics

Admin:

This person will be able to access all the functions of the system. This person can validate user, can remove user also can view all kind of question answers such as which is most trending questions and answers.

User:

A user can be a anyone who is curious about seeking knowledge. User can view his own question and answer. He can also view how many people have answer the question. By default all users are students they can view all posts.

2.4 Operating Environment

Hardware platform:

Processor: i5 or above, with clock speed of 2.0 GHz or above

Ram: 4 GB or more (Recommended)

Free disk Space: 1 GB or more (Recommended)

Software platform:

Front-end: React JS, HTML, CSS, Bootstrap.

Back-end: Spring Boot, Databases MySQL.

Supported tools:

Visual Studio Code, MySQL Workbench, Eclipse EE.

2.5 Design and Implementation Constraints

Constraints:

- Interface is only in English. No other language option is available.
- User can log-in only with his assigned user-name and password.
- Limited to HTTP/HTTP

2.6 User Documentation

User documentation mainly comprises of help menu of application.

It will give all the minute details about the project, if any user has any query about any module or functionality, one can refer it and see how to operate the application.

This report is the complete documentation of our project. It gives complete details about the project, its functionality, users, software used, hardware requirement, environment and so on.

2.7 Assumptions and Dependencies

➤ Assumptions

- There is an active internet connection with the system.
- The system has internet browser installed.
- Users know the English language, as the user interface will be provided in English.

➤ Dependencies

Active participation from User for posting queries and answer.

3. External Interface Requirements

3.1 User Interfaces

The main element is web-pages using React JS. The UI design is based on single page Interface where user get view pages for login, register, post queries and view answers on single page.

3.2 Hardware Interfaces

In the hardware interface, the system interacts with hardware given the processor is above i5 with clock speed of 2.0 GHz with 4 GB RAM and the Hard Disk with 1 GB free space in the memory. In future enhancements, it can be made responsive to be able to work with mobile devices as well.

3.3 Software Interfaces

In software interfaces, Spring Boot is the back-end technology used along with MySQL Database. The front-end technologies include HTML, CSS, Bootstrap, React JS. Data will be communicated between these interfaces accordingly.

3.4 Communications Interfaces

The main communication interface for interacting with the Front End and Back End Ajax will be used.

4. System Features

4.1 Description

You are allowed to post free queries in this project. Once this is done, all you have to do is sit back and wait for the answers. Our project does not act as a middle man but rather knowledge-park.

4.2 Functional Requirements

4.2.1 Forum

The system will allow users to post free queries.

The system will allow users to search questions and answers according to his/her requirement.

The system will give multiple answers for user to search.

The users can any time update or delete his/her questions and answers.

The users can view response for his/her.

4.2.2 Admin Analysis

The system shall allow the admin to use all functionality of project.

Admin should have delete authority for irrelevant questions and answers.

Admin can have access to all database.

5. Other Non-functional Requirements

User satisfaction - The system is such that it stands up to the user expectation.

Response time – The response of all the operation is good. This has been made possible by careful programming.

Error Handling: - Response to user errors and undesired situations has been taken care of to ensure that the system operates without halting.

Safety and Robustness: - The system is able to avoid or tackle disastrous action. In other words, it should be fool proof. The system safeguards against undesired events, without human intervention.

Portable: - The software should not be architecture specific. It should be easily transferable to other platforms if needed.

User friendliness: - The system is easy to learn and understand. A native user can also use the system effectively, without any difficulties.

5.1 Performance Requirements

The application should be available for use 24*7 through the server. Also, the application should be user friendly with a proper user interface which makes it easy for the user to understand. All the options should be present in properly accessible places for user convenience.

5.2 Safety Requirements

All login ids and passwords of the Metro management should be protected for privacy using whatever constraints required the application.

5.3 Security Requirements

All passwords of the administrators should be protected for privacy using whatever constraints required for the application. Transactions regarding user records should be carried out properly.

5.4 Software Quality Attributes

Availability

The system should run on a variety of operating systems that support the Java language. The system should run on a variety of hardware.

Accessibility

The software will be accessible to public.

Compatibility

The software will be compatible with multiple platforms.

Durability

The software will be tested for working with multiple users.

Effectiveness

The software will be made to handle operations effectively.

Maintainability

The system should be easy to maintain. There should be a clear separation between the interface and the business logic code.

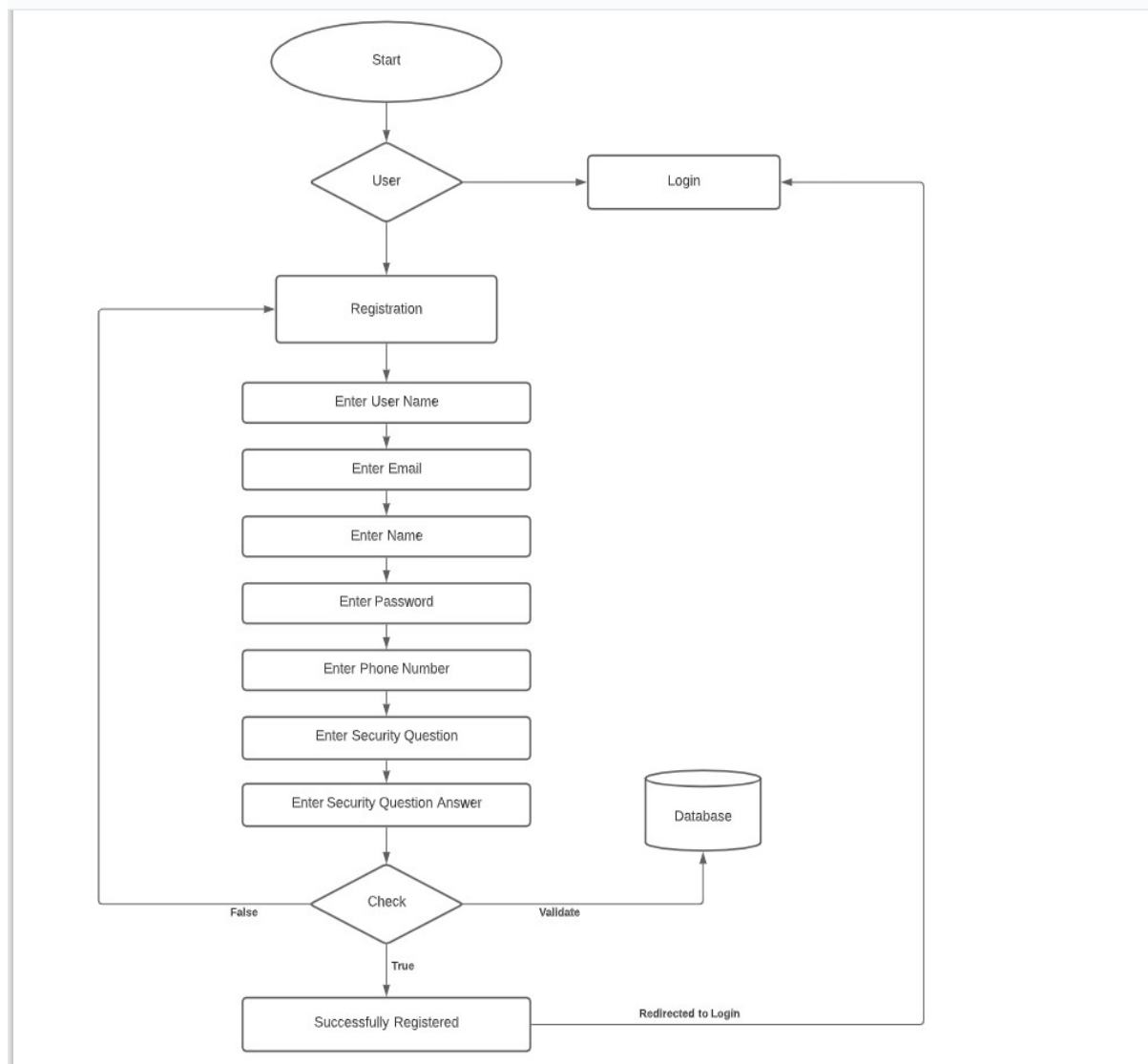
6. Other requirements

Appendix A : Glossary

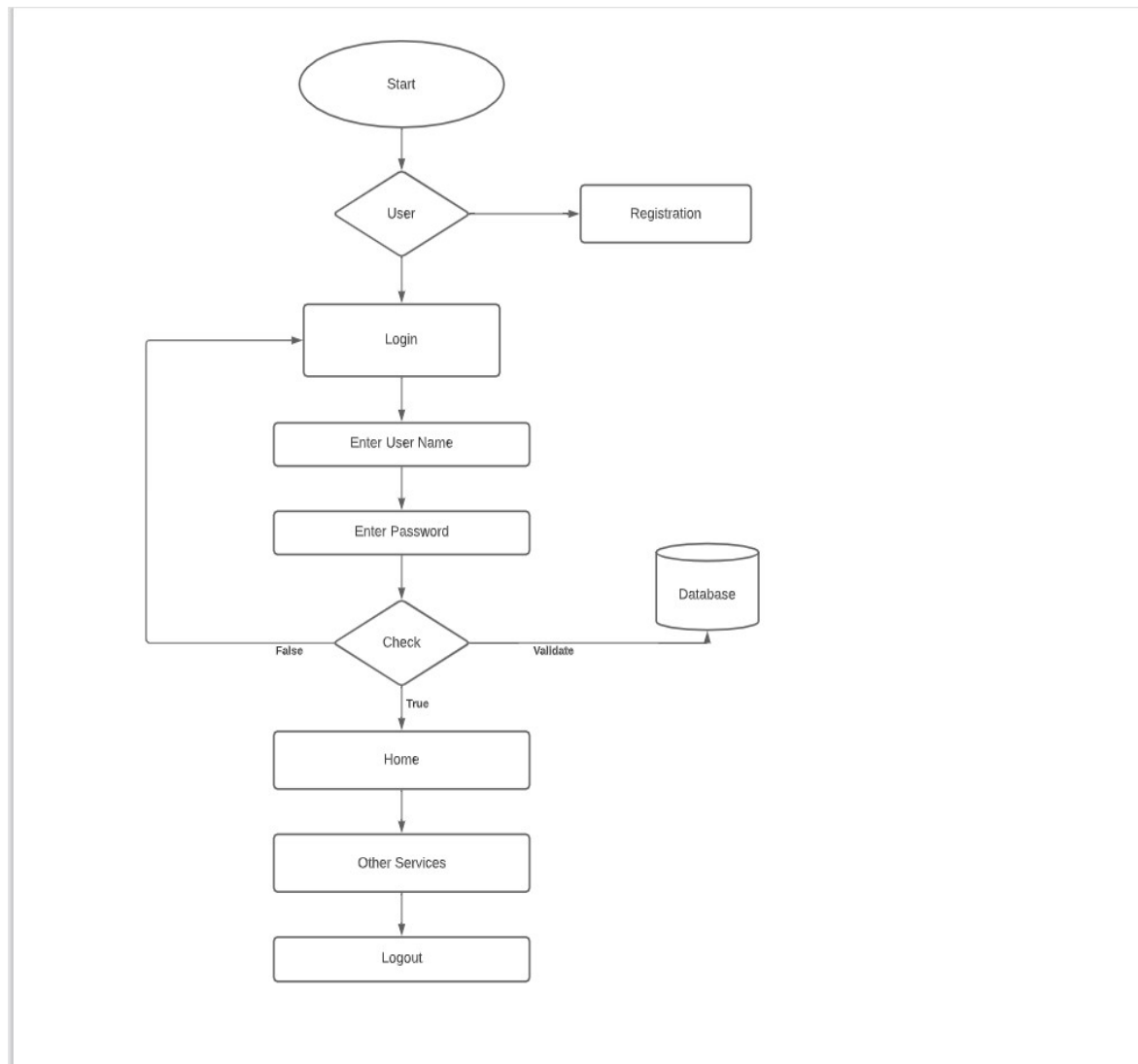
Sr. No.	Abbreviation	Full Form
1.	SRS	Software Requirements and Specifications
2.	ANSI	American National Standards Institute
3.	DTO	Data Transfer Object
4.	DAO	Data Access Object
5.	MVC	Model View Controller
6.	HTML	HyperText Markup Language
7.	CSS	Cascading Style Sheets
8.	GUI	Graphical User Interface
9.	HTTP/HTTPS	HyperText Transfer Protocol/HyperText Transfer Protocol Secure
10.	SQL	Structured Query Language

Appendix B: Analysis Models

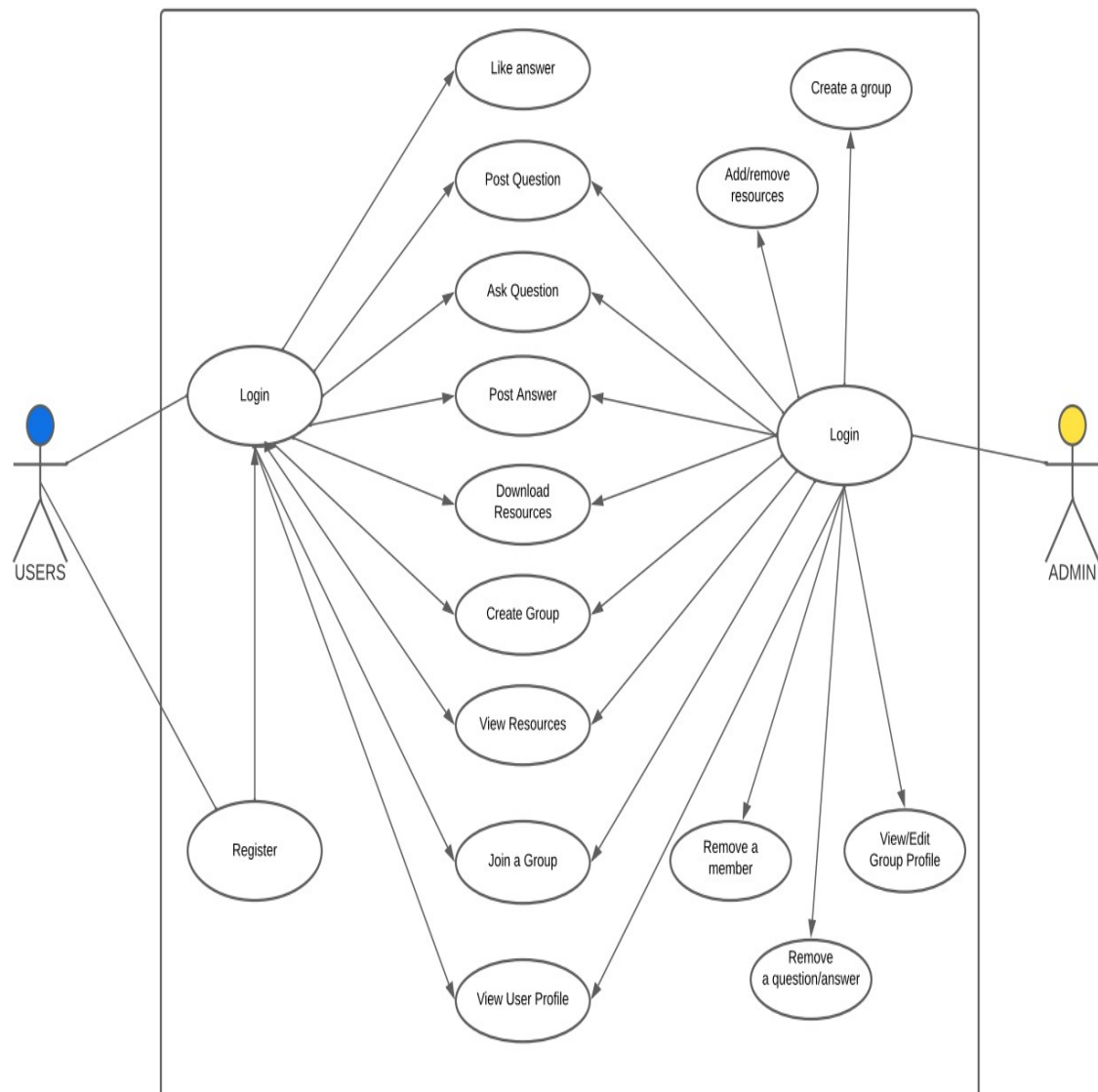
Registration Process Flow Chart:



Login Process Flow Chart:

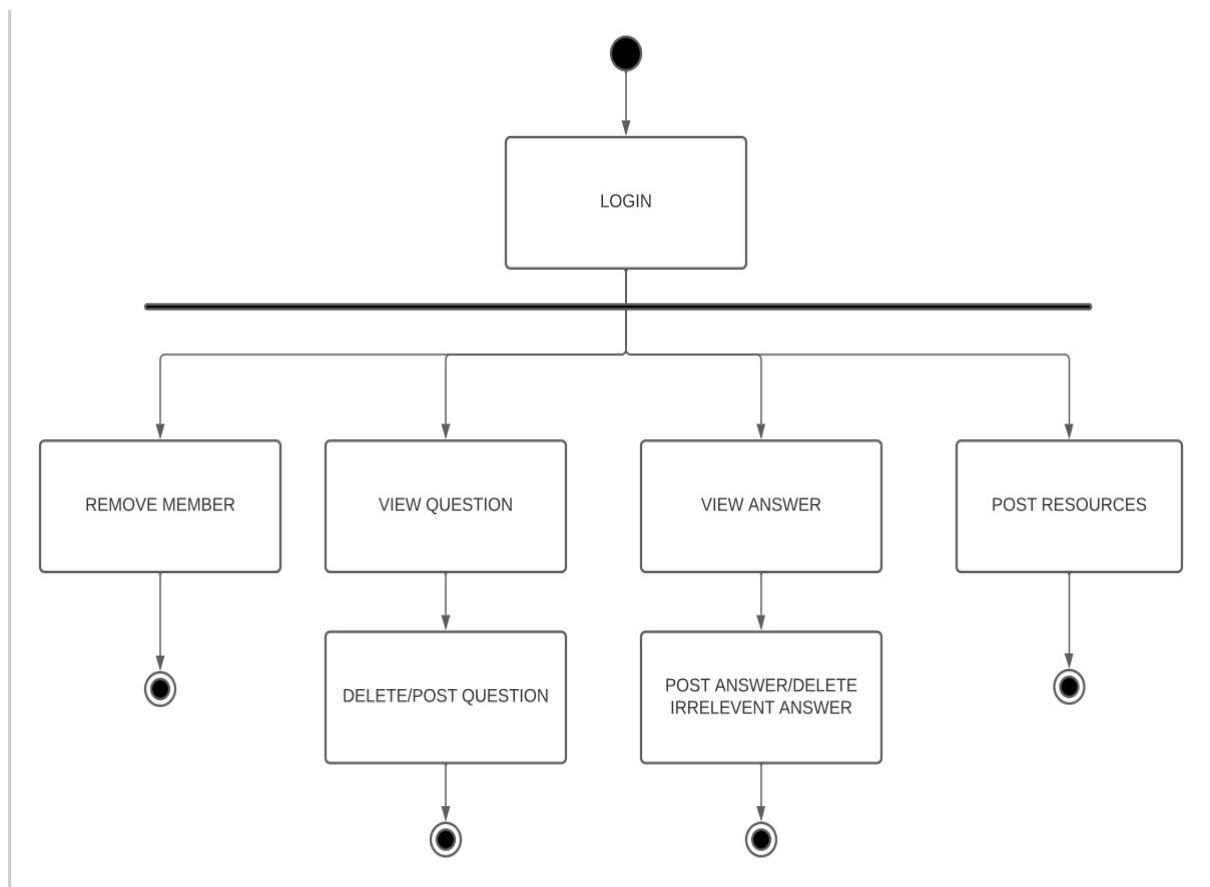


Use Case Diagram:

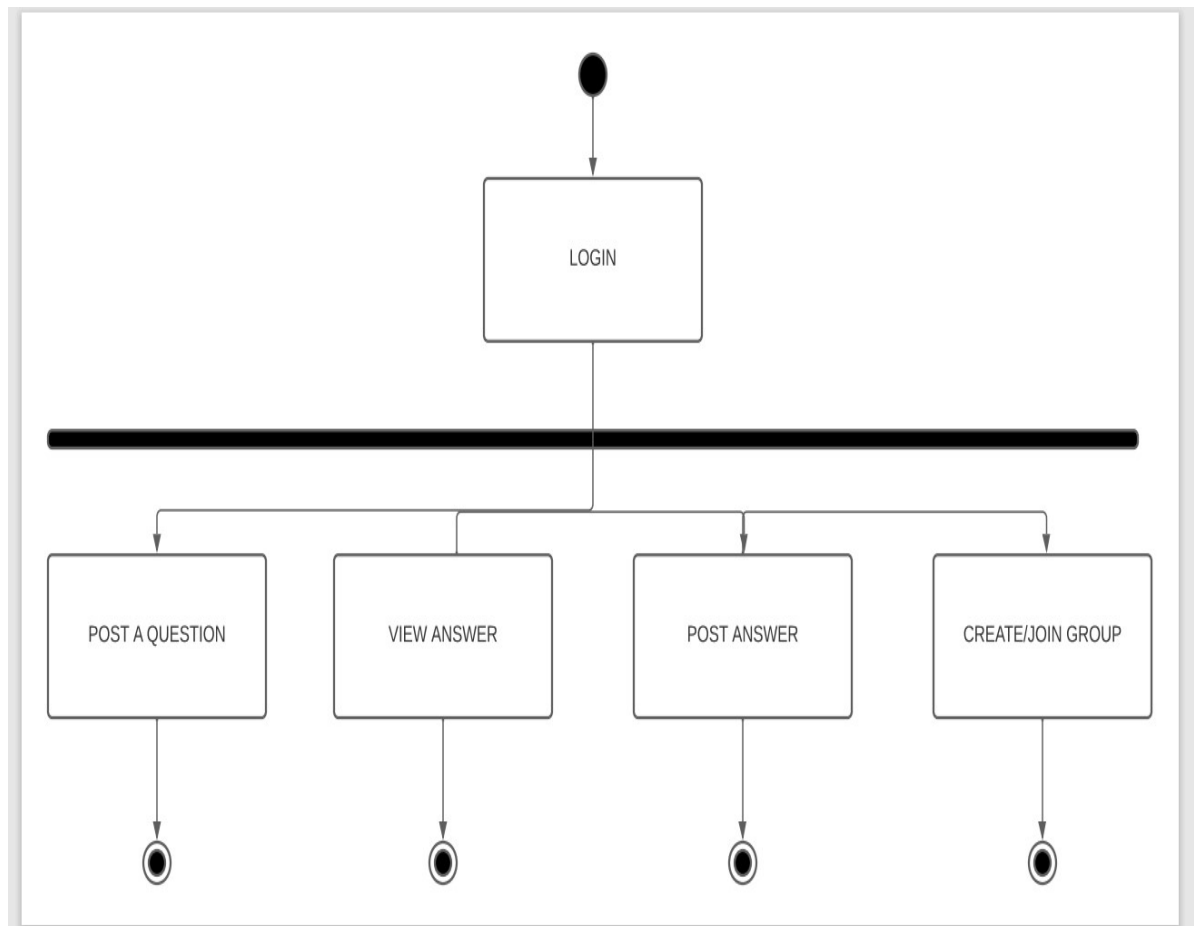


Activity Diagram

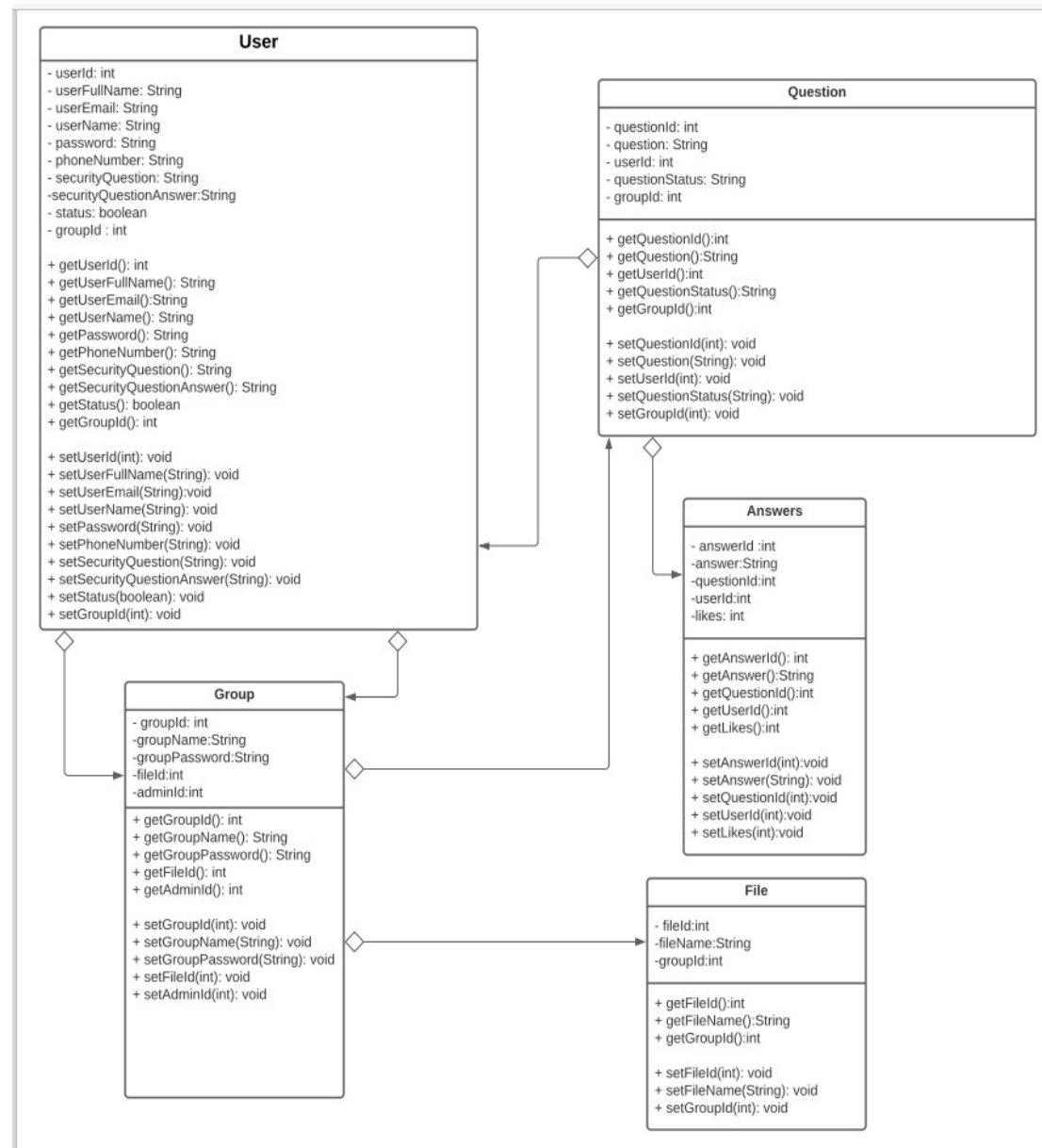
Admin:



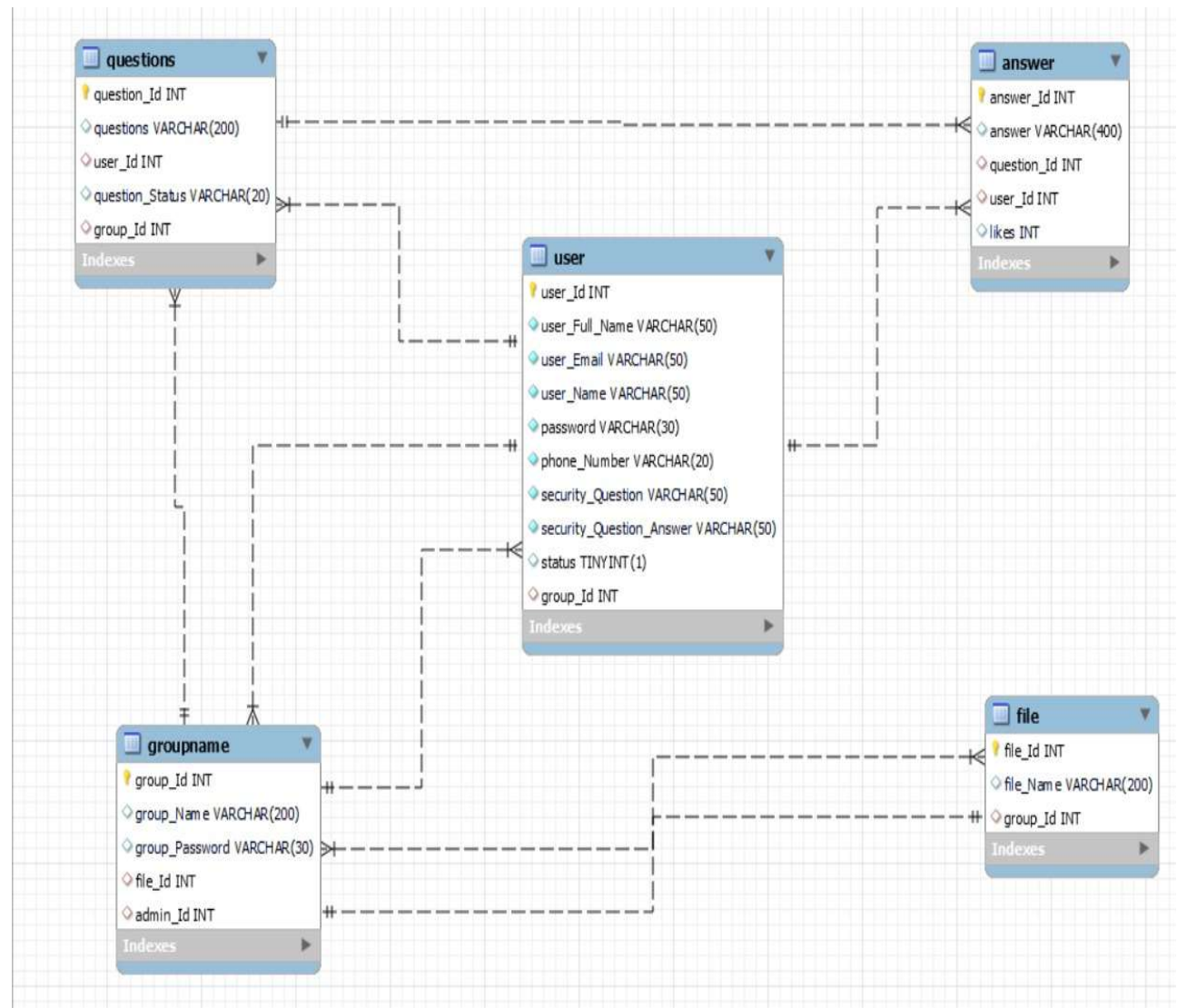
User:



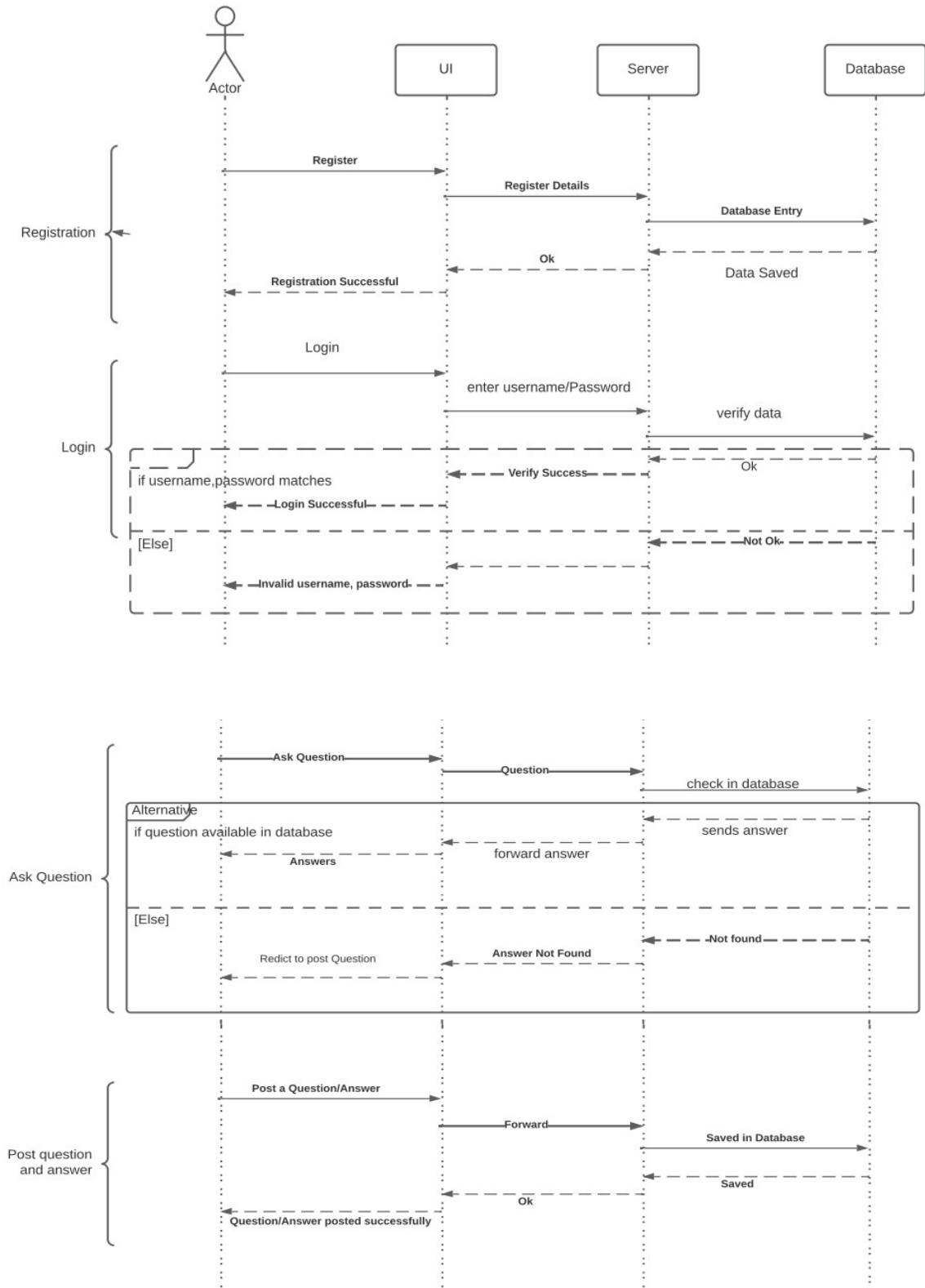
Class Diagram

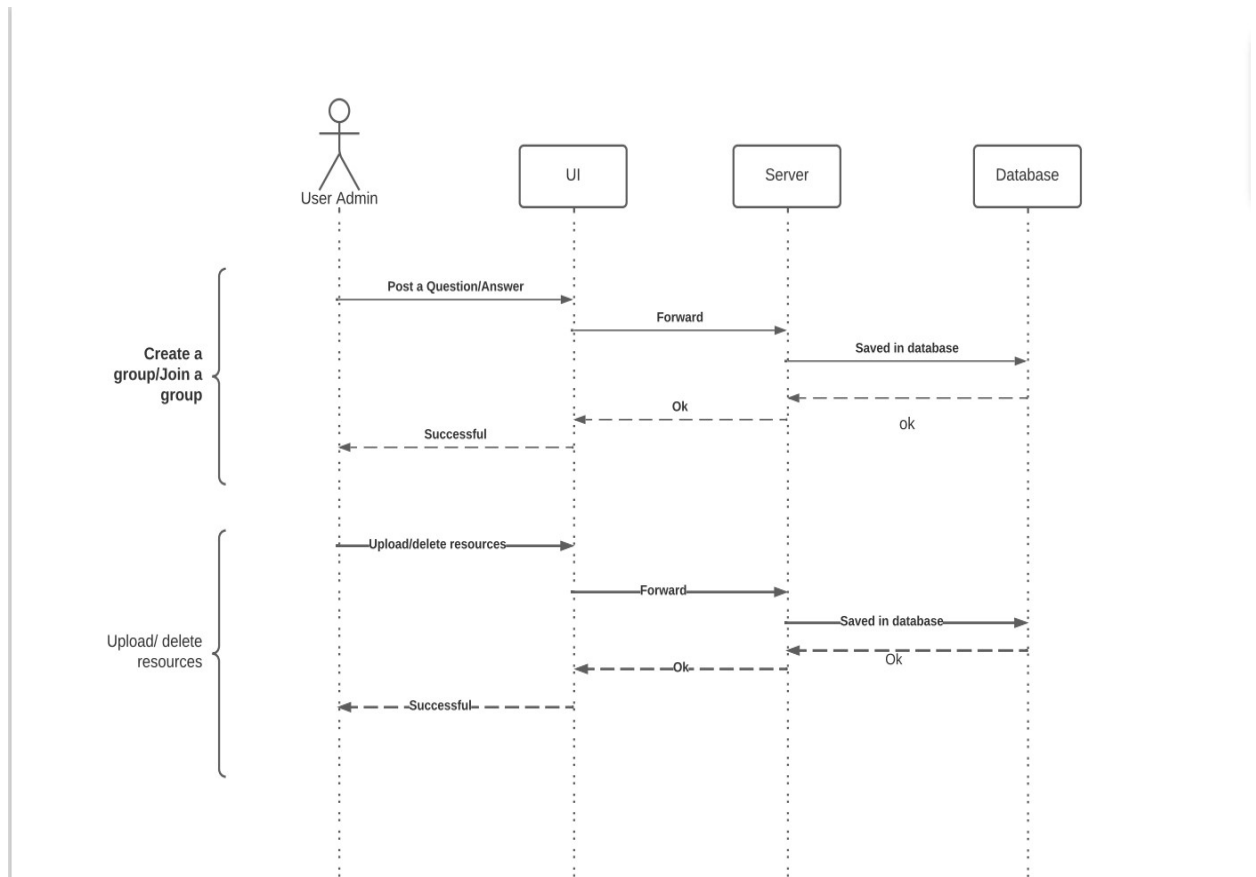


ER Diagram



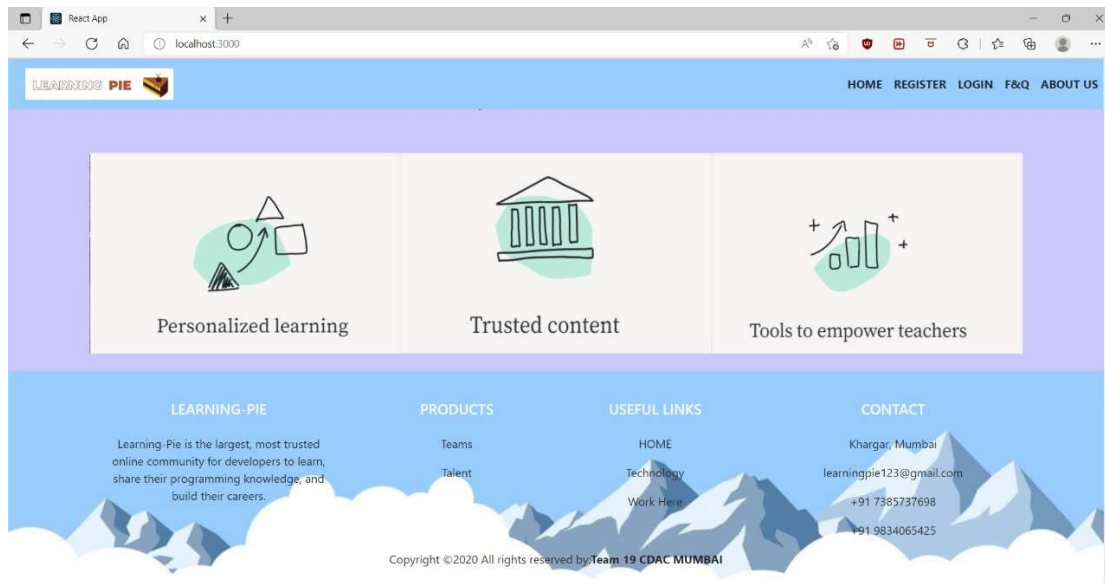
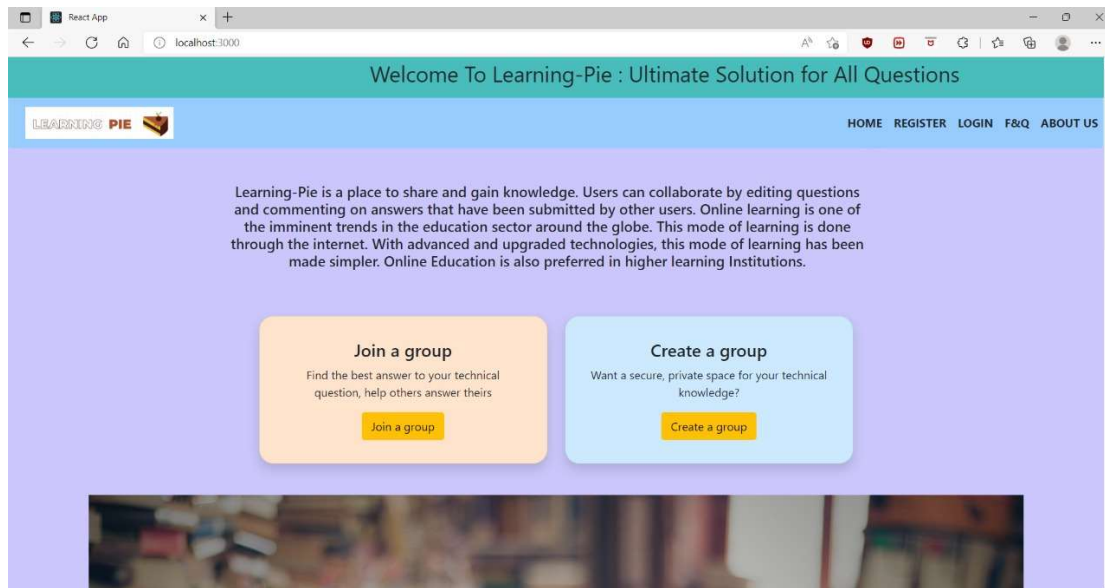
Sequence Diagram:



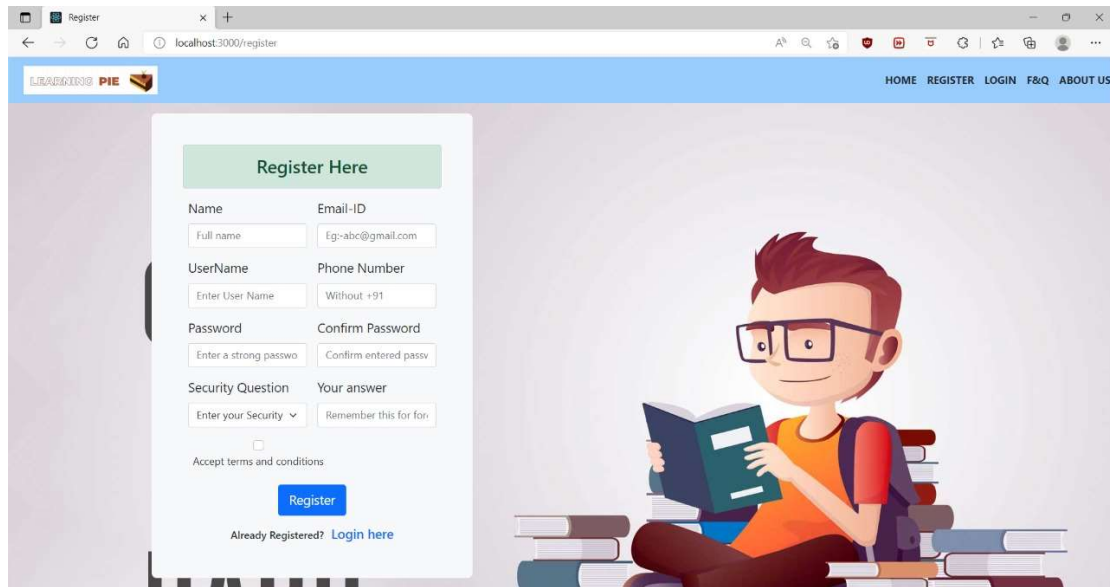


DESIGN:

Home Page Snapshot:

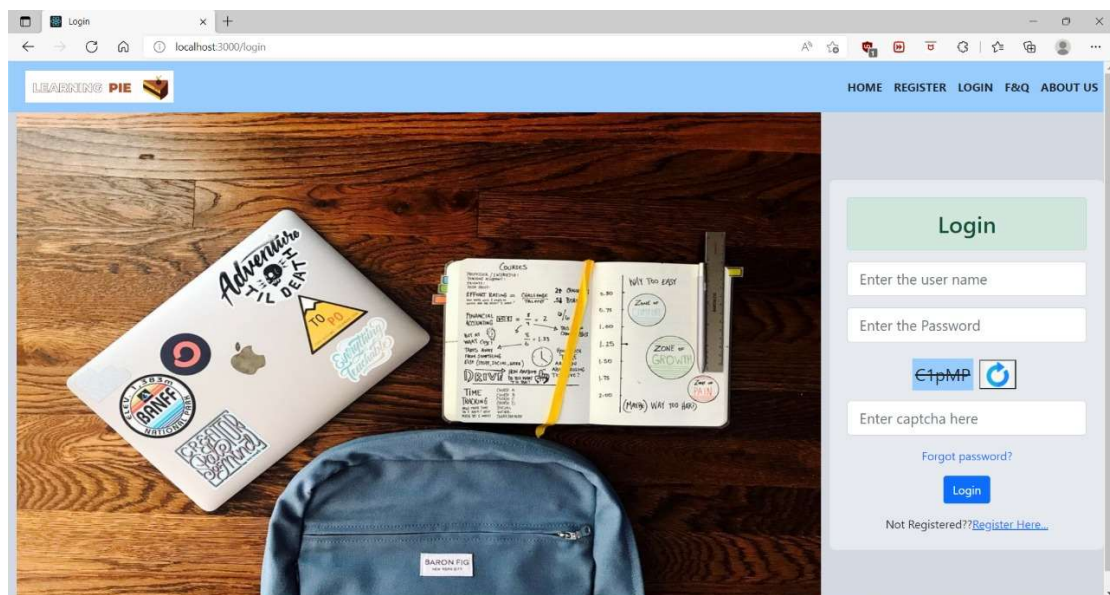


Register Page Snapshot:



A screenshot of the Learning Pie registration page. The page has a blue header with the Learning Pie logo and navigation links: HOME, REGISTER, LOGIN, F&Q, ABOUT US. The main content area features a 'Register Here' form on the left and a cartoon illustration of a student reading a book on the right. The form includes fields for Name (Full name), Email-ID (Eg:-abc@gmail.com), UserName (Enter User Name), Phone Number (Without +91), Password (Enter a strong password), Confirm Password (Confirm entered passw), Security Question (Enter your Security), and Your answer (Remember this for for). There is a checkbox for 'Accept terms and conditions' and a 'Register' button. Below the button is a link: 'Already Registered? Login here'.

Login Page Snapshot:



A screenshot of the Learning Pie login page. The page has a blue header with the Learning Pie logo and navigation links: HOME, REGISTER, LOGIN, F&Q, ABOUT US. The main content area features a background image of a laptop with stickers, a notebook, and a backpack on the left, and a 'Login' form on the right. The form includes fields for 'Enter the user name', 'Enter the Password', and 'Enter captcha here'. There is a 'Login' button, a 'Forgot password?' link, and a 'Not Registered?? Register Here' link.

Forgot:

Forgot Password

First enter registered Email (and verify it):

Enter Your Email Here..... [Verify Email](#)

Enter Username :

Enter your Username

Enter OTP :

Enter your OTP

New Password :

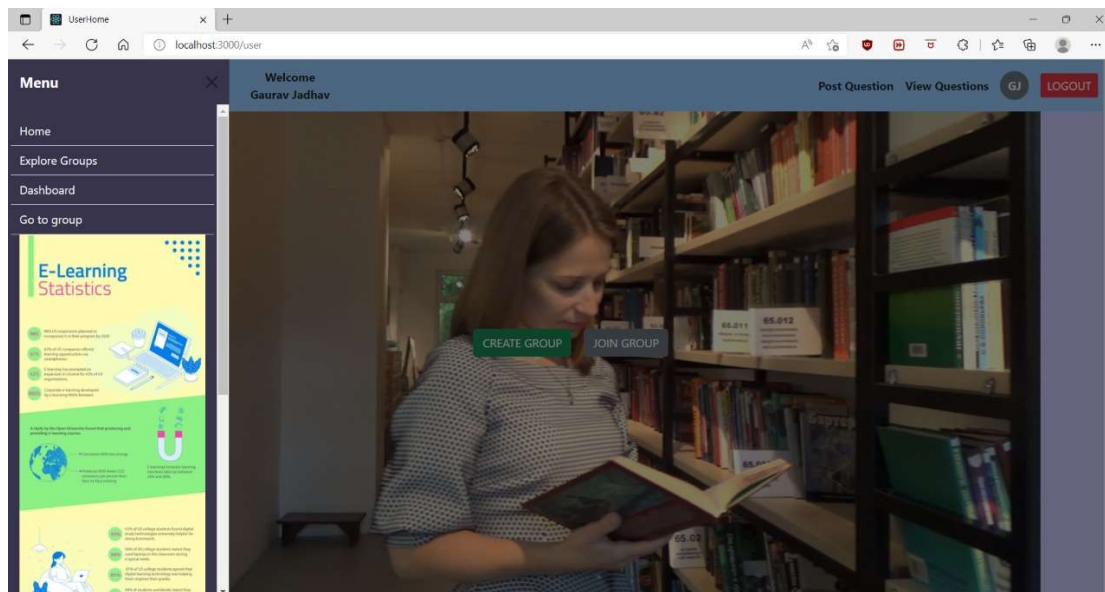
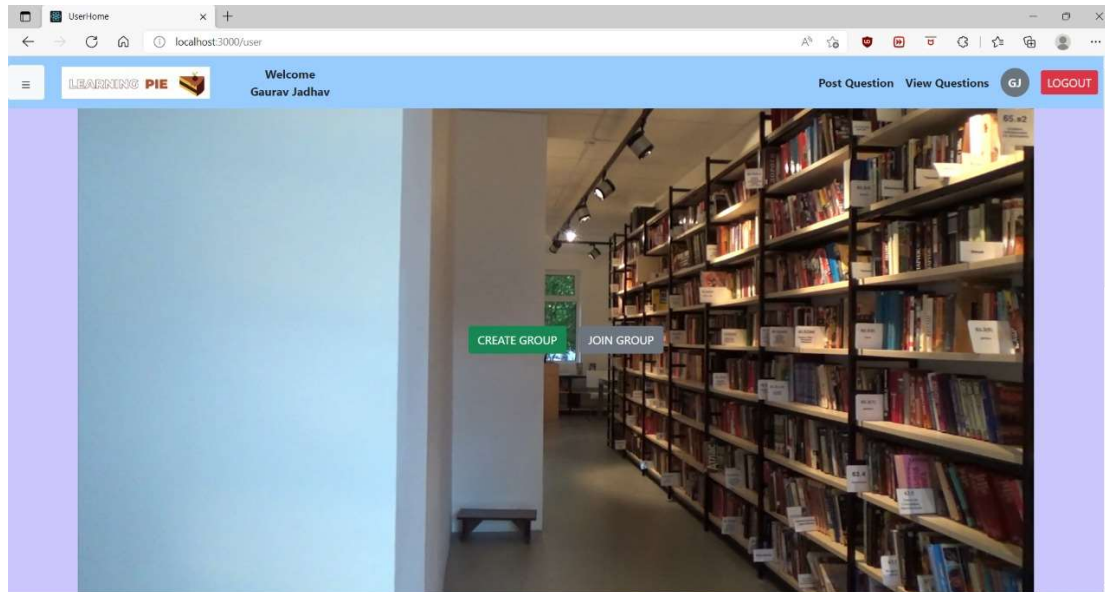
Enter your New Password Here.....

Confirm Password :

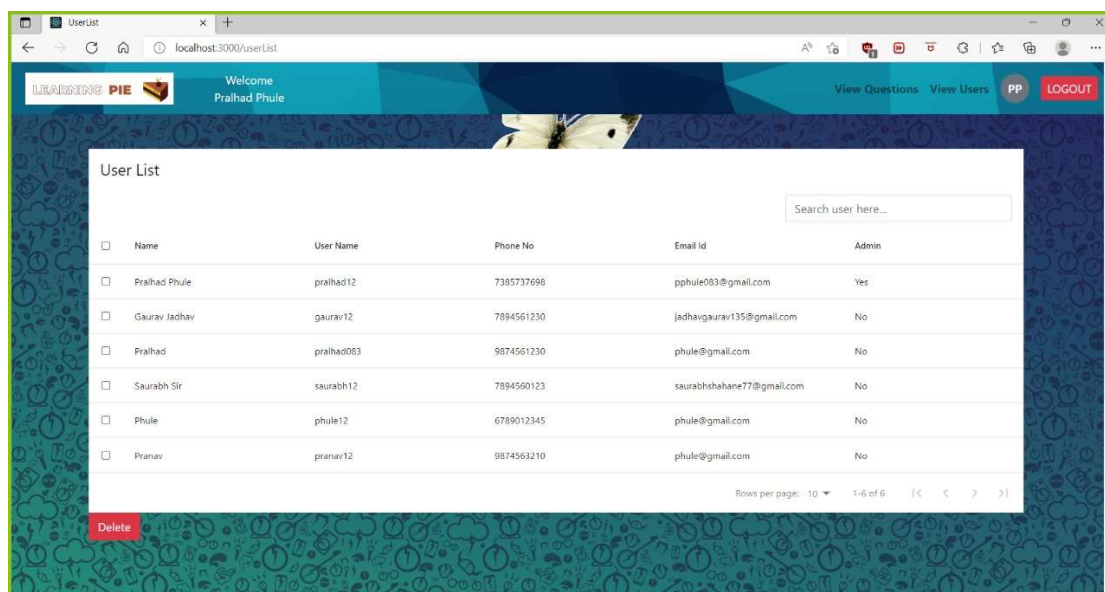
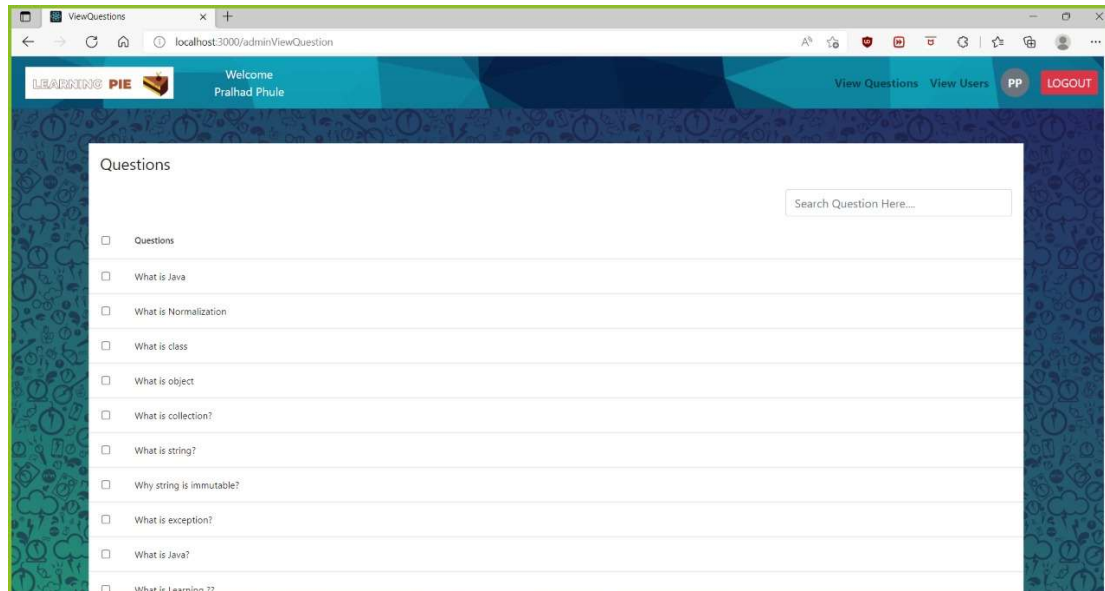
Enter your Confirm Password Here.....

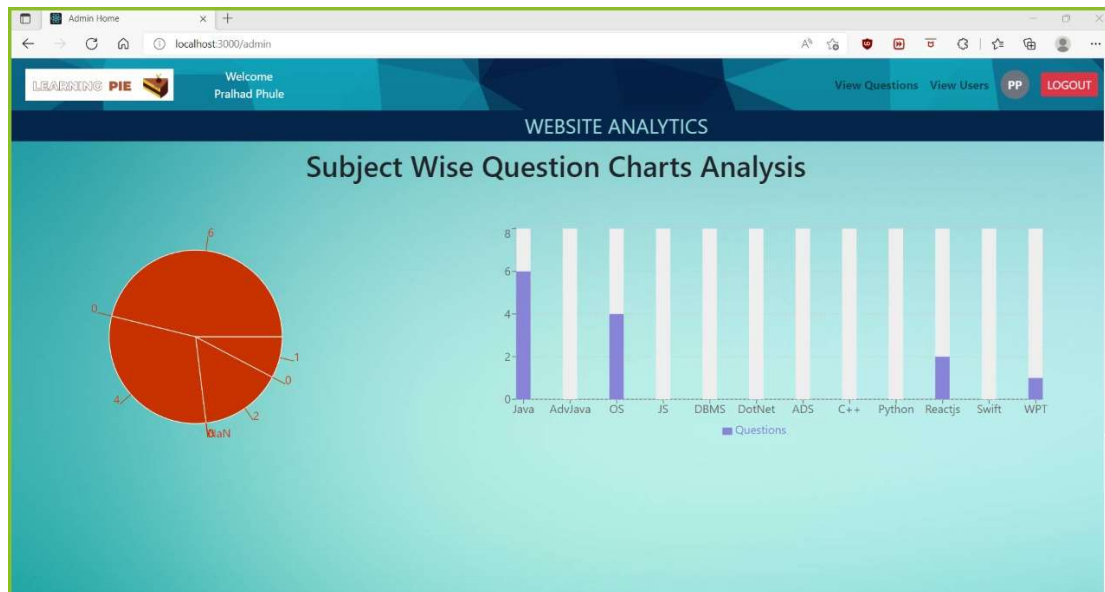
[Back](#) [Submit](#)

User Home Page Snapshot:

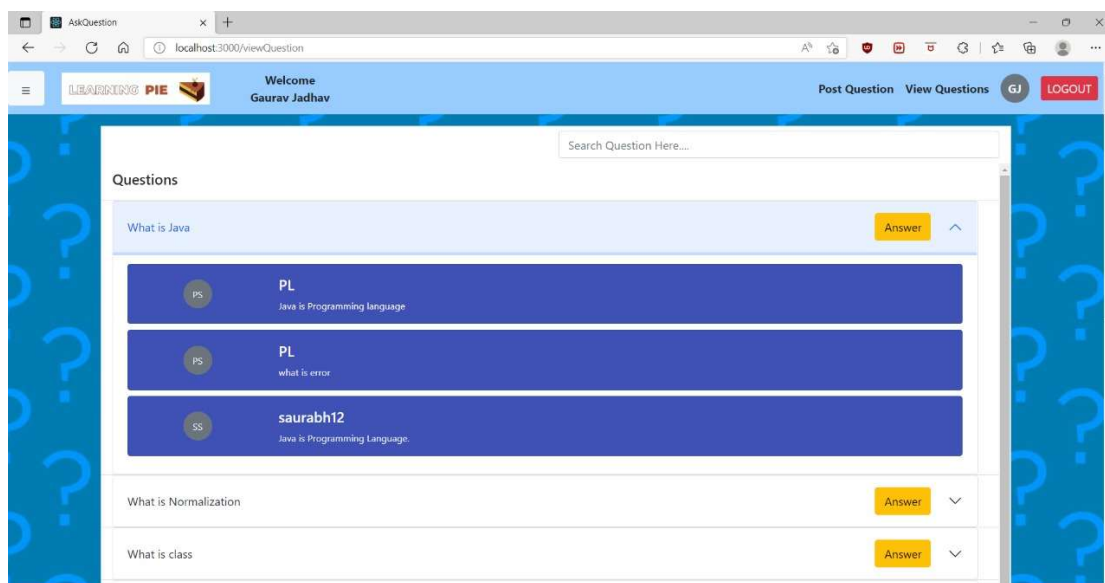


Admin Page Snapshot:

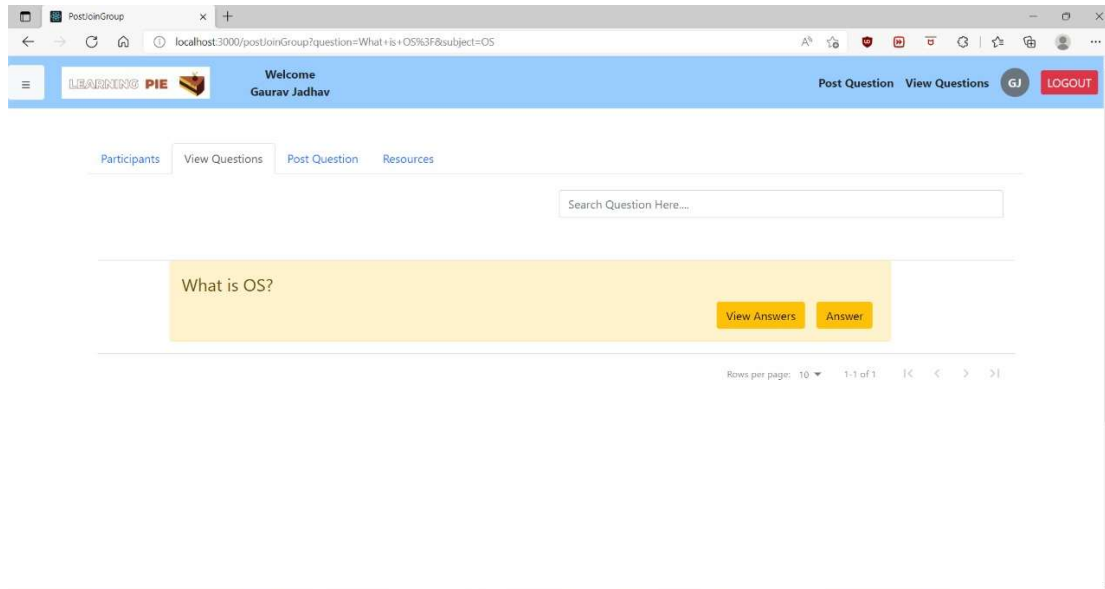




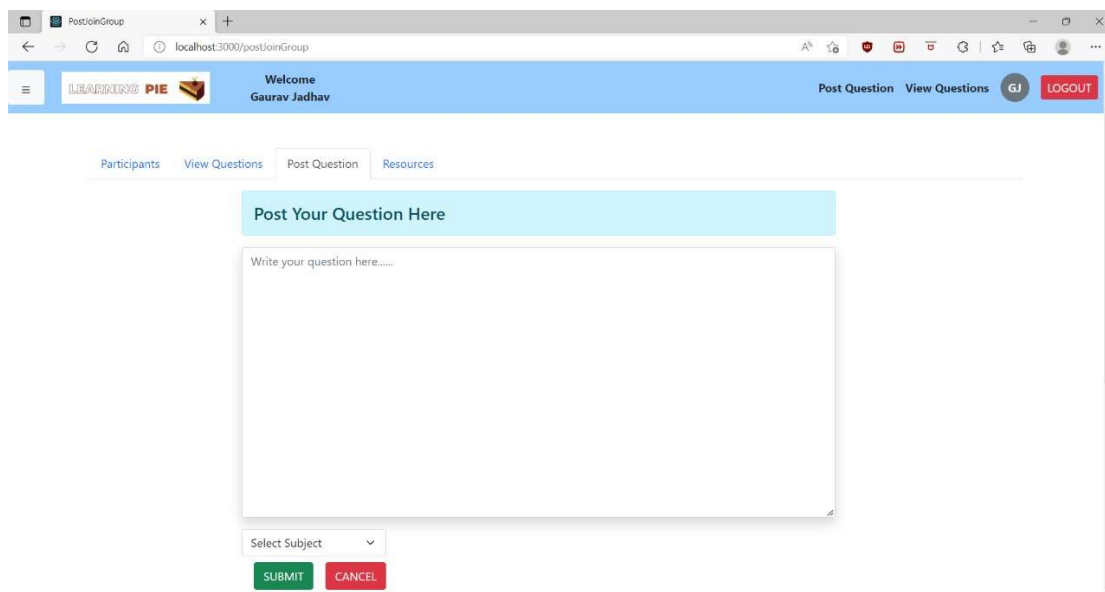
View Question Page Snapshot:



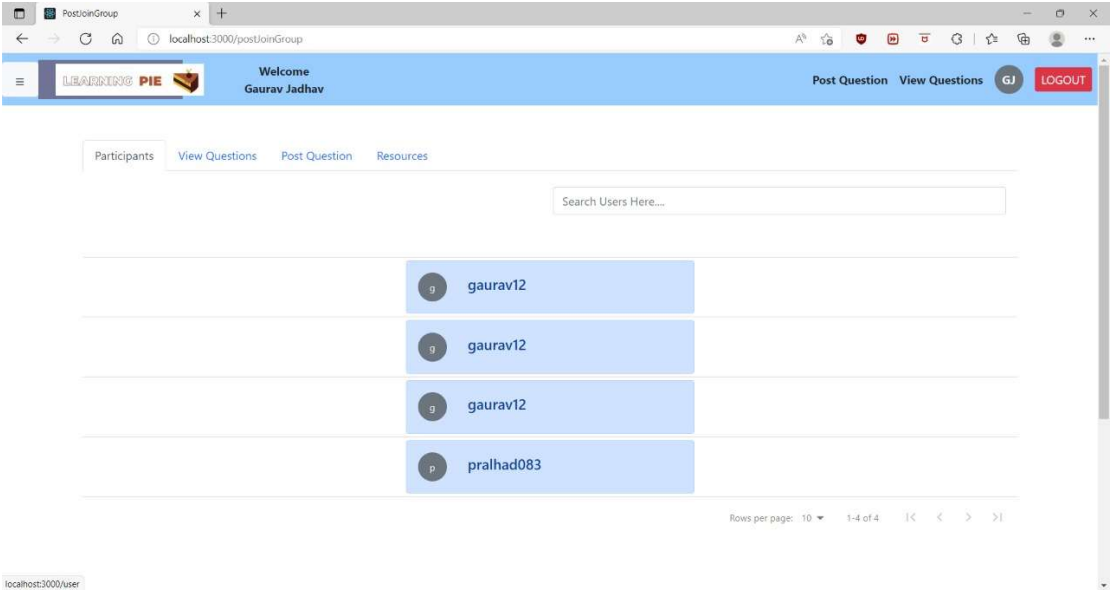
View Question in Group Page Snapshot:



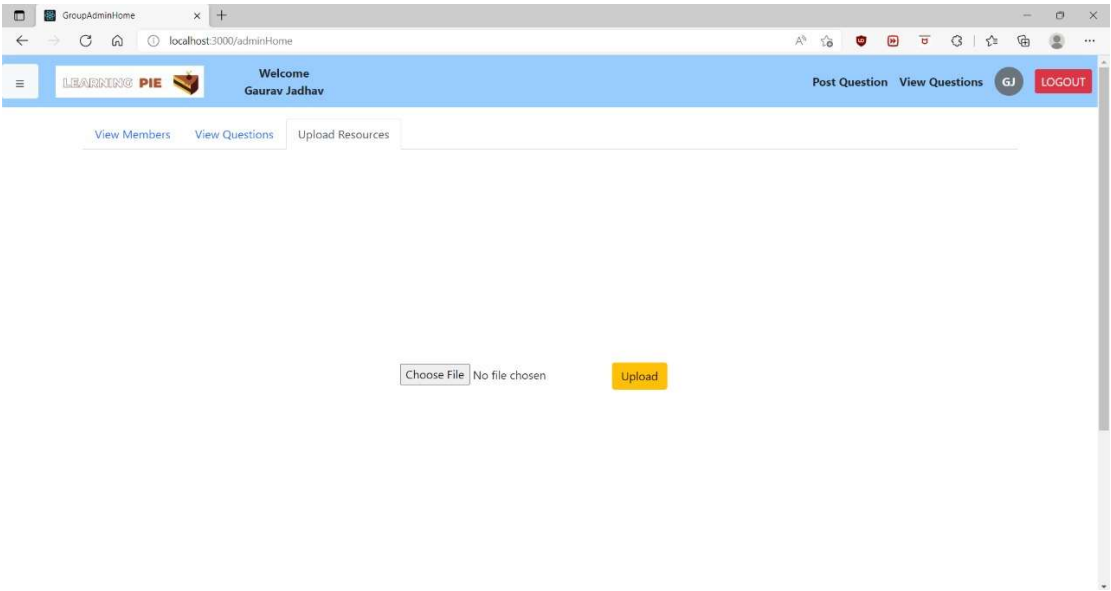
Post Question In Group Page Snapshot:



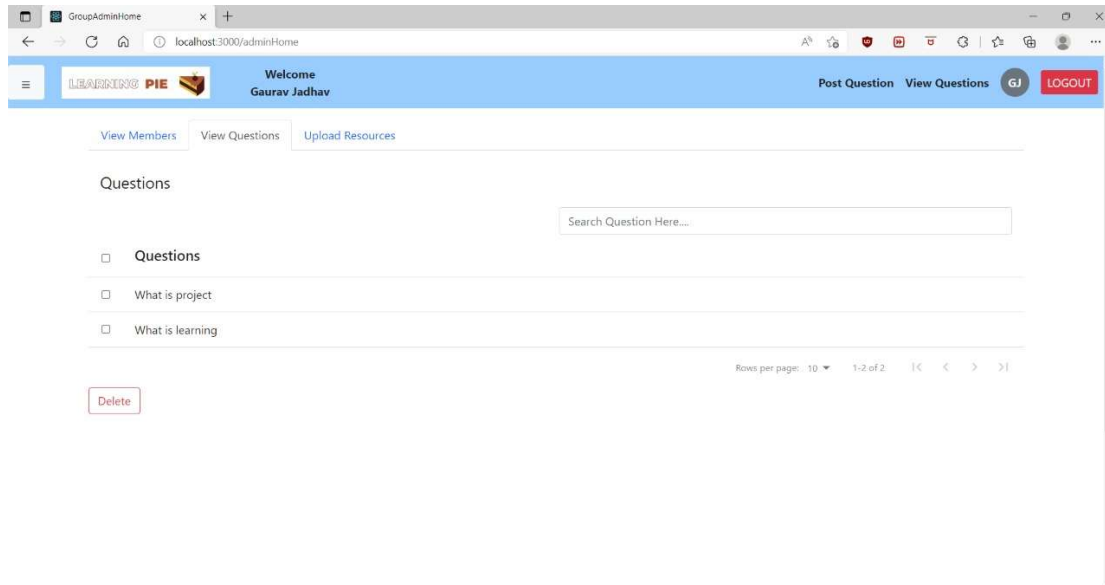
Group Participants Page Snapshot:



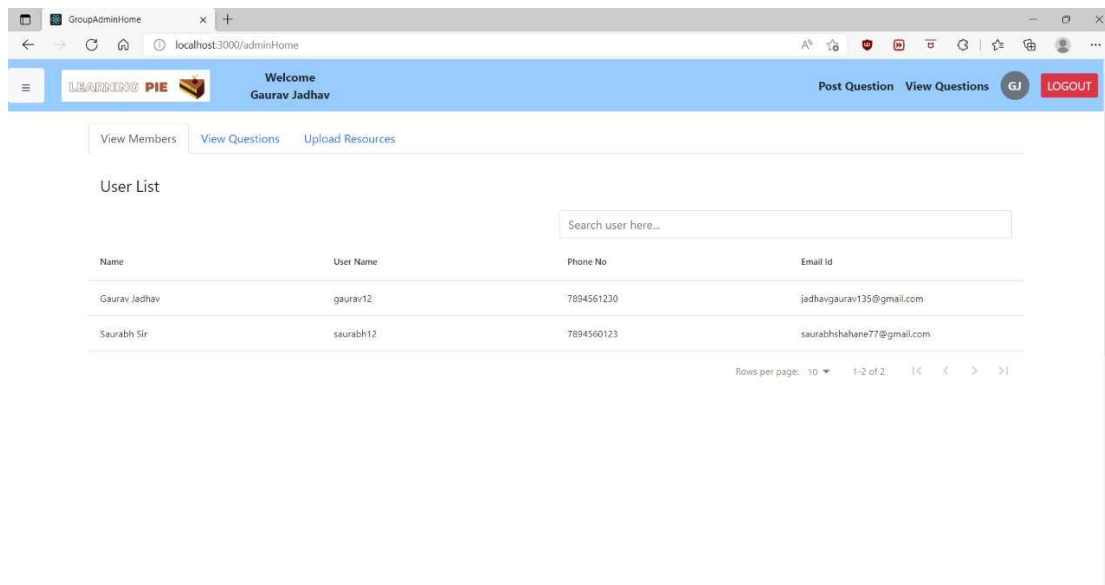
Group Admin Upload Resources Page Snapshot:



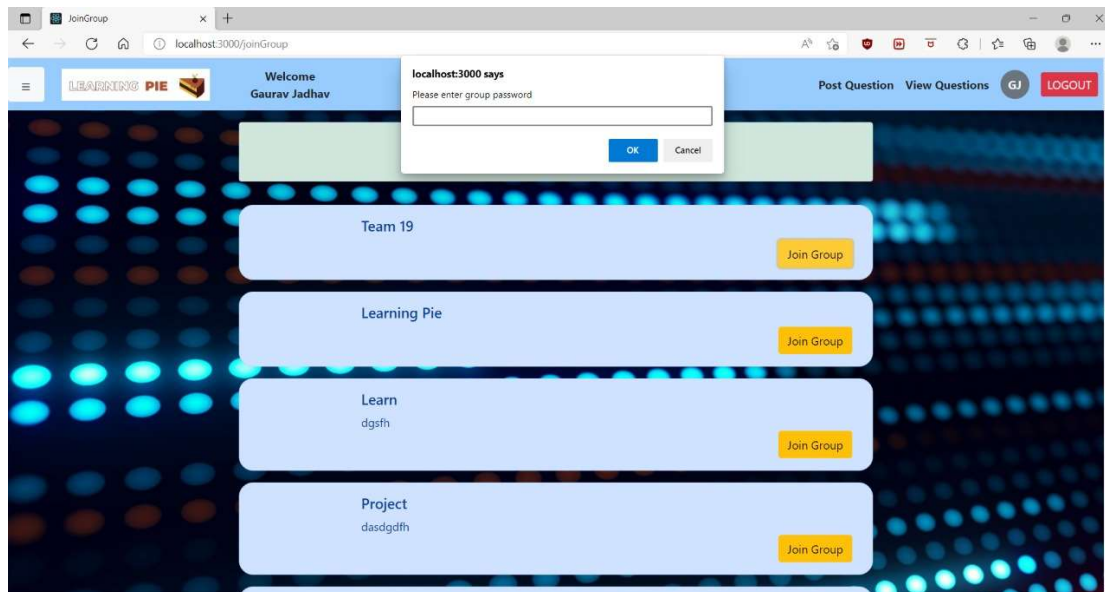
Group Admin Page Snapshot :



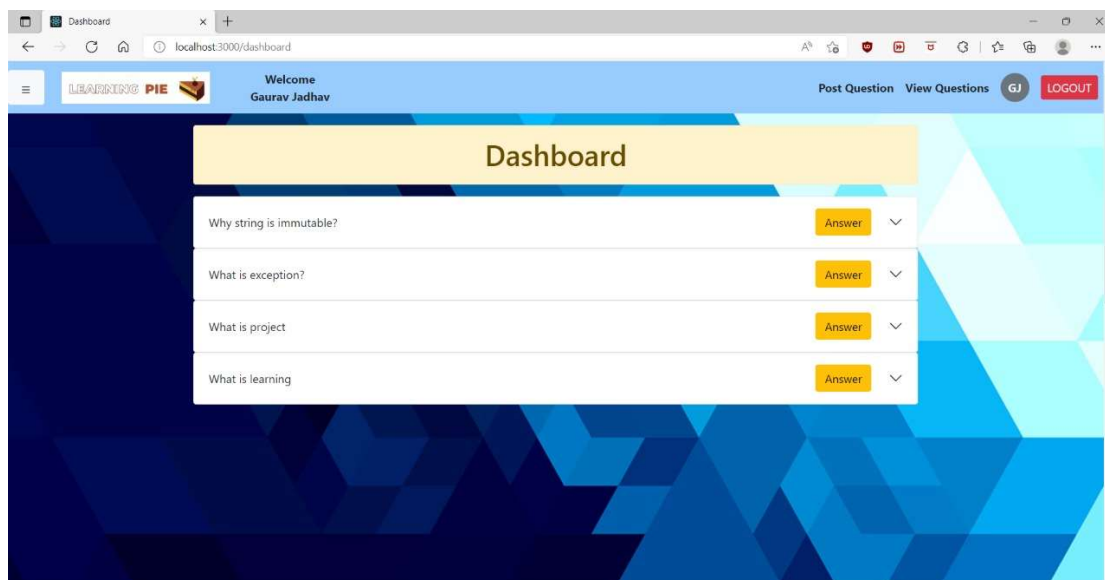
Group Admin User List Page Snapshot:



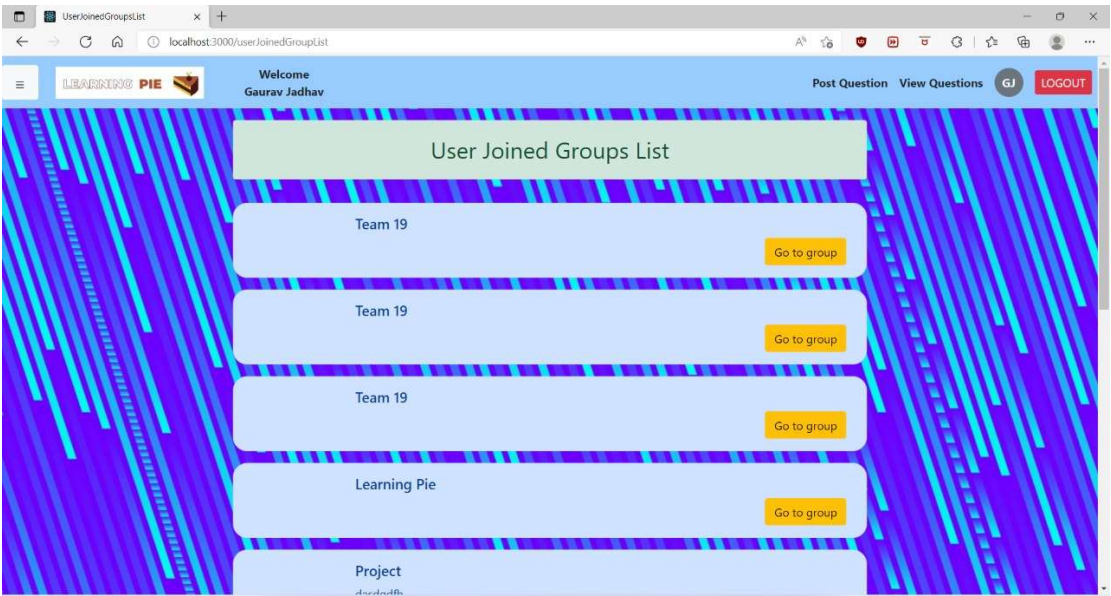
Group List Page Snapshot:



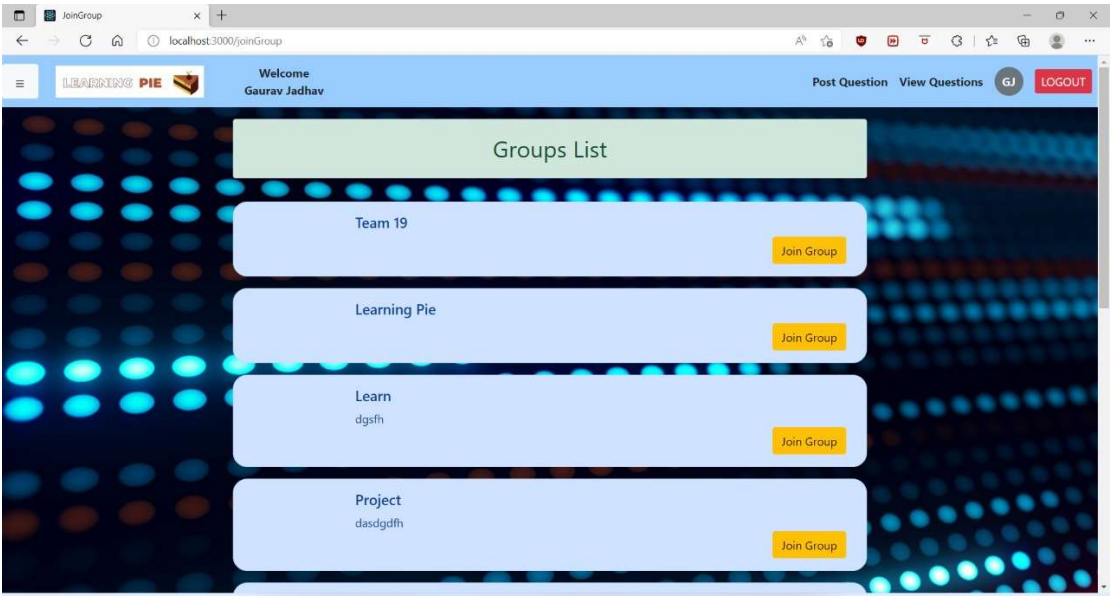
Dashboard Page Snapshot:



User Joined Groups List Page Snapshot:



Groups List Page Snapshot:



Create Group Page Snapshot:

CreateGroup

localhost:3000/createGroup

LEARNING PIE

Welcome Gaurav Jadhav

Post Question View Questions GJ LOGOUT

IT'S DANGEROUS TO GO ALONE!
TAKE YOUR STUDY GROUP.

Create Group

Enter the group name

Enter the Group Password

Enter the group description here

Create Group

Update Profile Page Snapshot:

Updateprofile

localhost:3000/updateProfile

LEARNING PIE

Welcome Gaurav Jadhav

Post Question View Questions GJ LOGOUT

Update Profile

UserName gaurav12

Email-ID Eg-abc@gmail.com

Password Enter a strong password

Name Full name

Phone Number Without +91

Confirm Password Confirm entered password

Update

Choose File No file chosen Upload Your Picture

LEARNING-PIE

Learning-Pie is the largest, most trusted online community for developers to learn, share their programming knowledge, and

PRODUCTS

Teams Talent

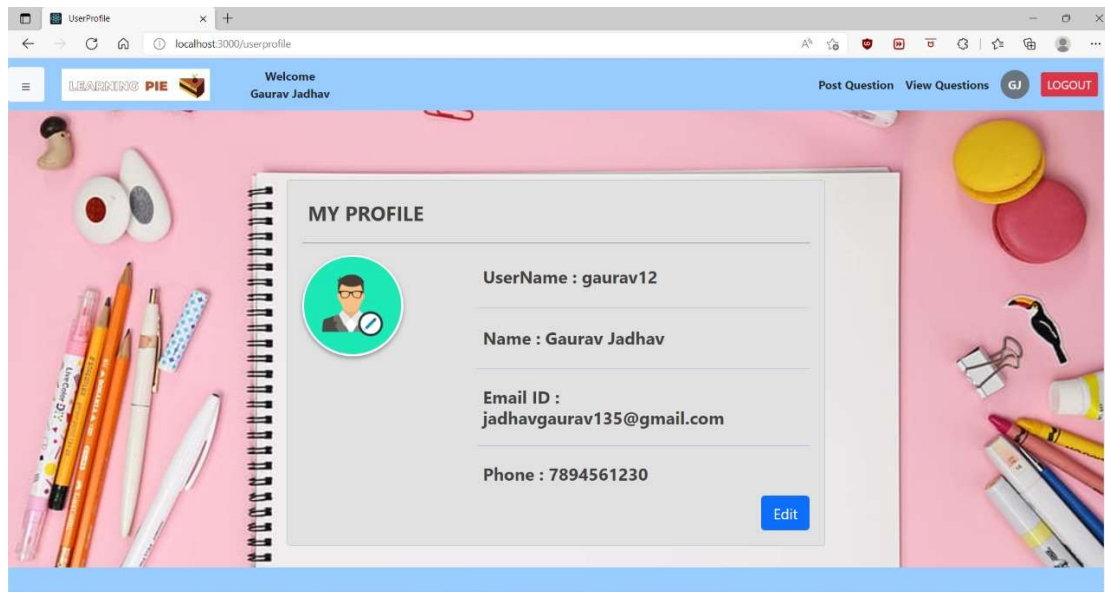
USEFUL LINKS

HOME Technology

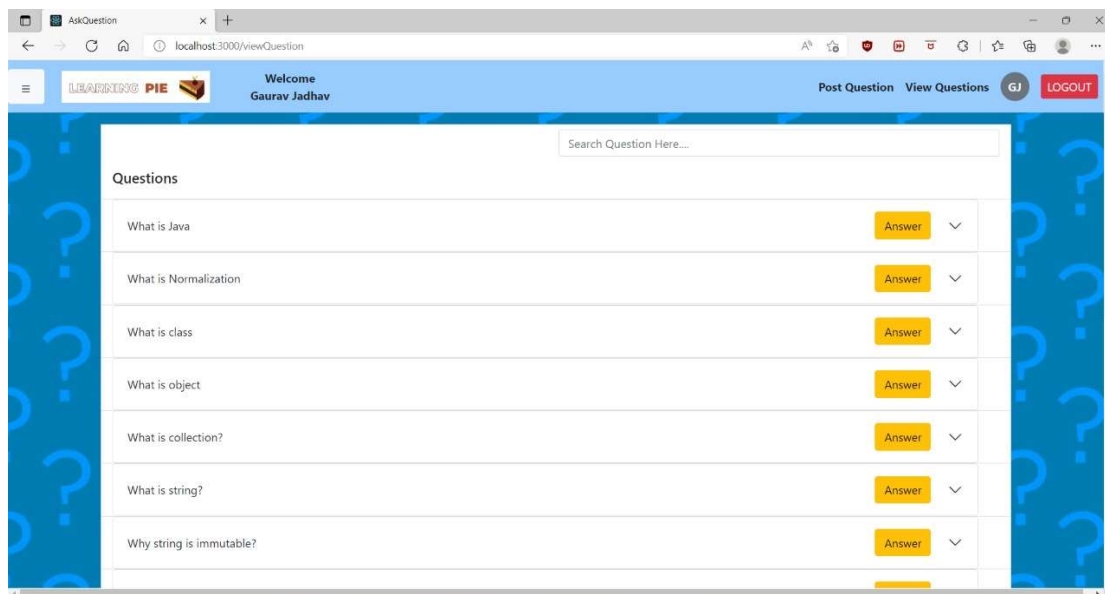
CONTACT

Kharghar, Mumbai learningpie123@gmail.com

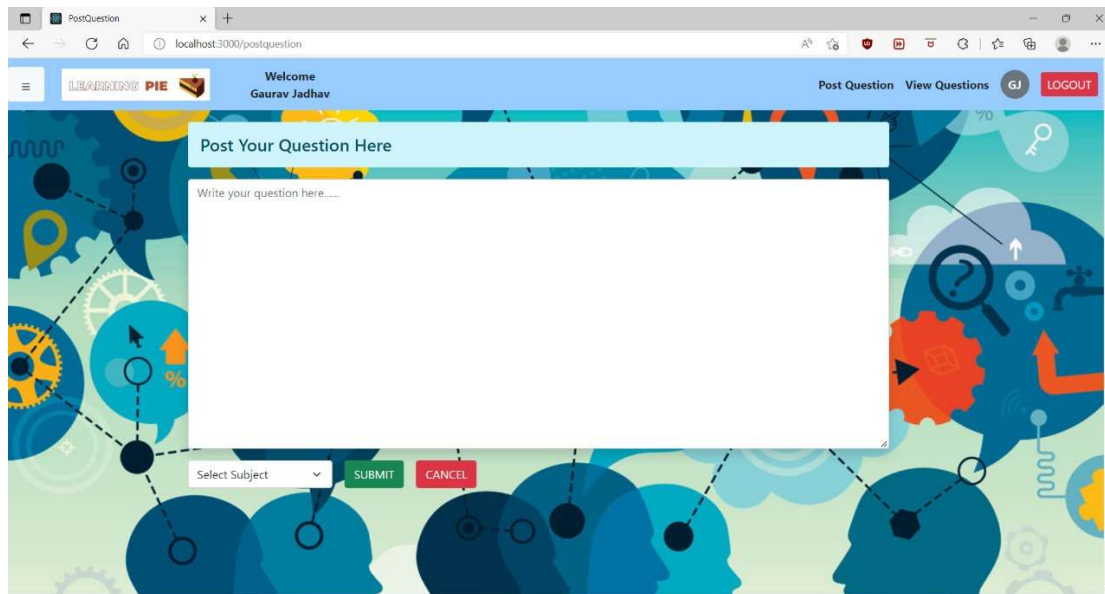
User My Profile Page Snapshot:



User View Questions Page Snapshot:

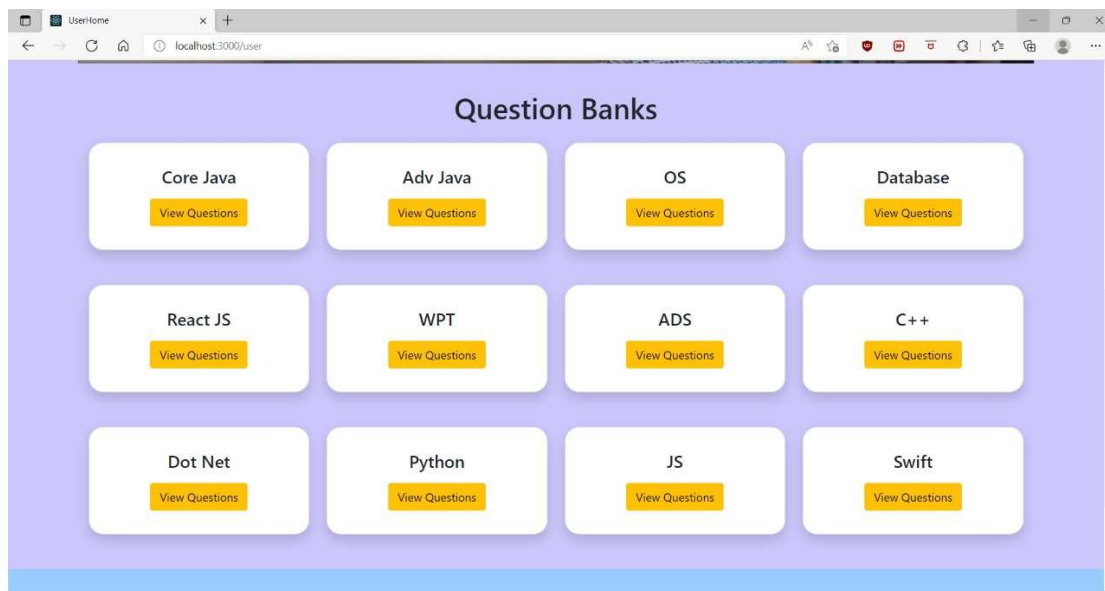


User Post Questions Page Snapshot:

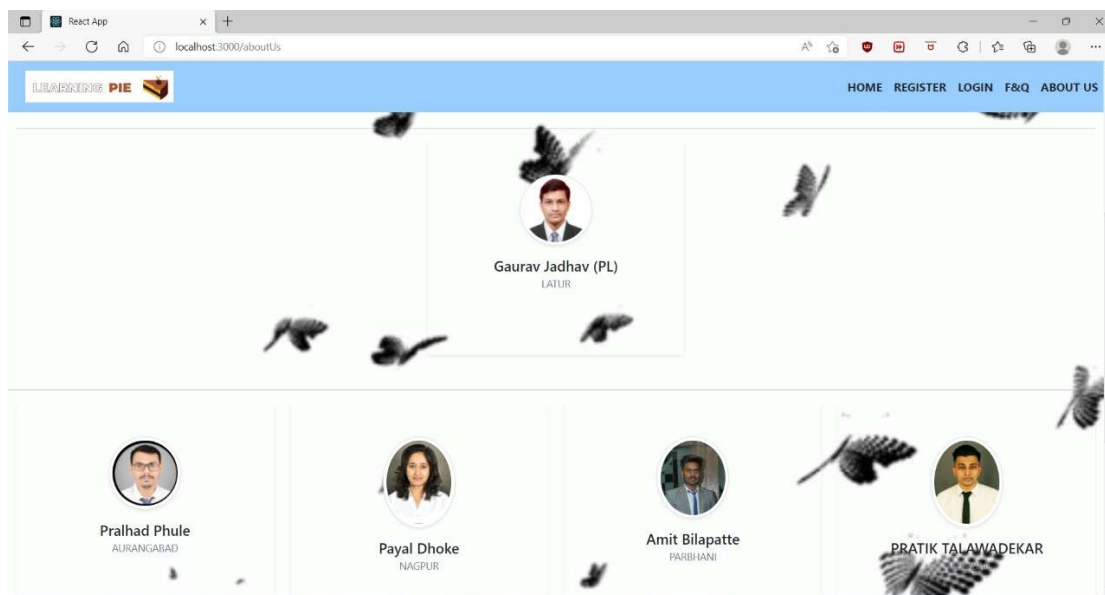
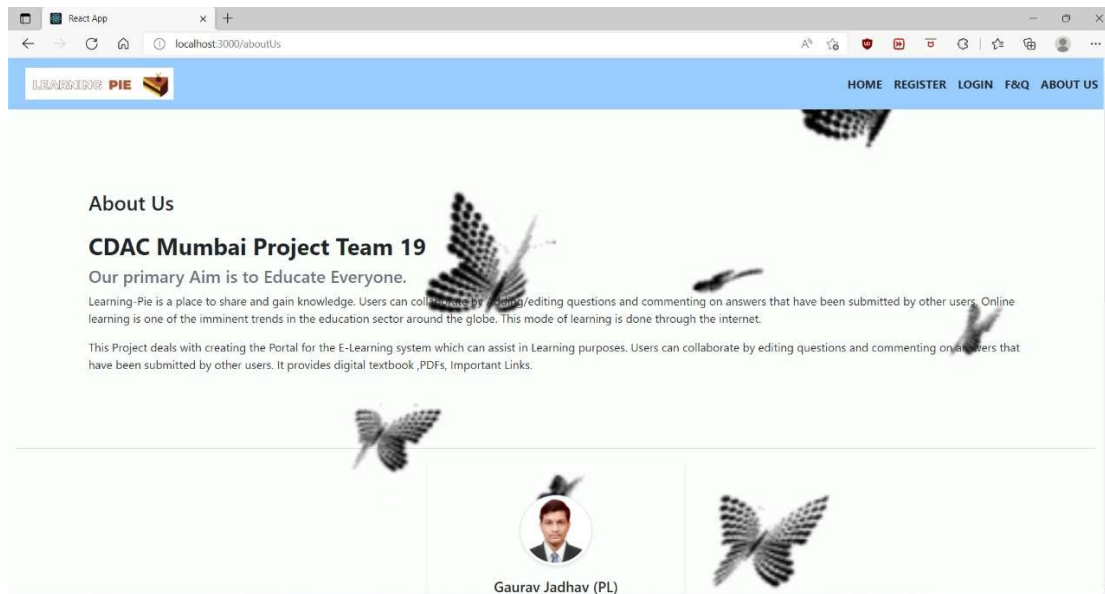


The screenshot shows a web browser window with the URL `localhost:3000/postquestion`. The page has a blue header with the Learning Pie logo, a welcome message for Gaurav Jadhav, and navigation links for 'Post Question' and 'View Questions'. A modal form titled 'Post Your Question Here' is centered on the screen. It contains a text area for writing the question, a 'Select Subject' dropdown menu, and 'SUBMIT' and 'CANCEL' buttons. The background features a colorful illustration of gears and human silhouettes.

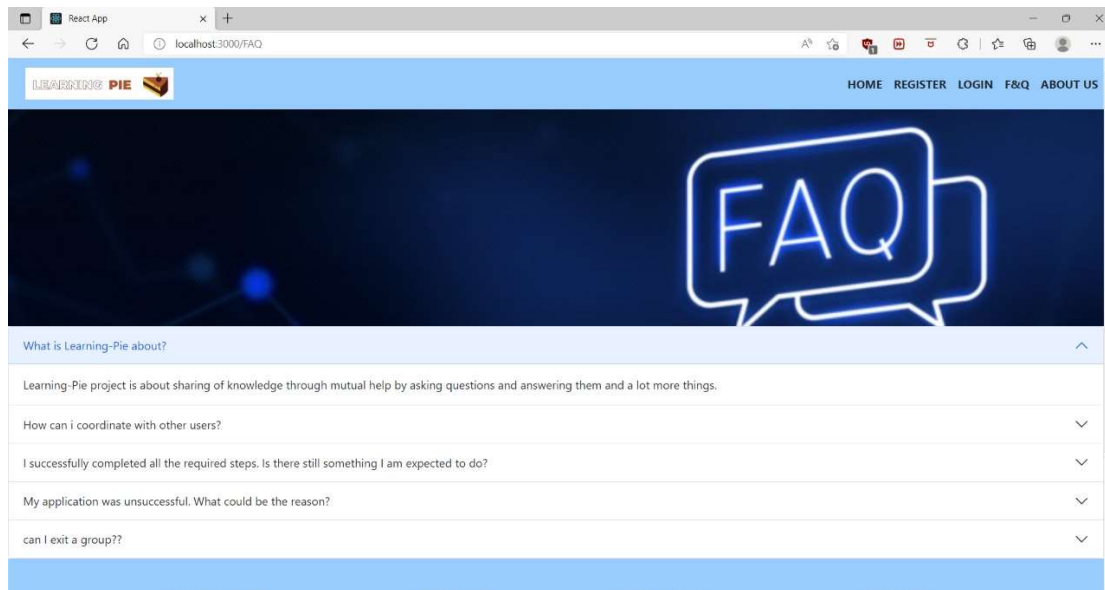
Question Banks Page Snapshot:



About Us Page Snapshot:



FAQ Page Snapshot:



IMPLEMENTATION

Algorithm of the project

STEP 1: START

STEP 2: OPEN HOME PAGE

STEP 3: DO REGISTRATION

STEP 4: LOGIN INTO SYSTEM

STEP 5: IF ADMIN

THEN DO DELETE QUESTIONS,

DE-REGISTER USERS ,

VIEW SUBJECT WISE COUNT OF QUESTIONS

STEP 6: IF USER

THEN POST QUESTION,

POST ANSWER,

CREATE GROUP,

JOIN GROUP

STEP 7: IF GROUP ADMIN

THEN VIEW QUESTION,

VIEW GROUP MEMBERS,

UPLOAD PDF

STEP 8: IF GROUP MEMBERS

THEN POST QUESTION,

POST ANSWER,

VIEW GROUP MEMBERS

DOWNLOAD PDF

STEP 9: END

Results

Why is Learning Pie important for students?

This project facilitates online sharing of questions and answers (Content). This will help users to find/Locate all necessary content at one place. It is also helpful in solving doubts/queries. We use problem solving approach as user can search their doubts on the website to find the answer. If the question is not present then user can post it and any user with relevant technology knowledge can solve it. The most relevant answer would be suggested first.

Conclusions

Taking into account all the mentioned details, we can make the conclusion that the learning-pie is online sharing of questions and answers (Content). This will help users to find/Locate all necessary content at one place. It is also helpful in solving doubts/queries. We use problem solving approach as user can search their doubts on the website to find the answer. If the question is not present then user can post it and any user with relevant technology knowledge can solve it. The most relevant answer would be suggested first.

ACKNOWLEDGEMENTS

Presentation inspiration and motivation have always played a key role in the success of any venture.

We express our sincere thanks to Dr. C. P. Johnson, Senior Director, Center for Development of Advance Computing (C-DAC), Mumbai.

We pay our deep sense of gratitude to Mrs. Kiran Waghmare, Course Coordinator, C-DAC Mumbai to encourage us to the highest peak and to provide us the opportunity to prepare the project. We are immensely obliged to our colleague for their elevating inspiration, encouraging guidance and kind supervision in the completion of our project.

We feel to acknowledge our indebtedness and deep sense of gratitude to our guide Mr. Aditya Bhavi whose valuable guidance and kind supervision given to us.